AMENDMENTS TO THE CLAIMS:

1. (Previously presented) A light emitting diode driving circuit comprising:

a control pulse signal generator for generating a control pulse signal having a variable duty factor adjusted in dependence on characteristics of the light emitting diode;

a smoothing circuit for smoothing said control pulse signal to generate a control voltage; and

a driving circuit for generating a driving voltage according to said control voltage and supplying a forward current to said light emitting diode.

2. (Previously presented) A circuit according to claim 1, wherein said control pulse signal generator comprises:

a light adjustment pulse signal generating circuit for generating a light adjustment pulse signal of a variable duty factor; and

a control pulse signal generating circuit for generating a control pulse signal by adjusting the duty factor of said light adjustment pulse signal in dependence on characteristics of said light emitting diode.

3-5. (Canceled)

6. (Currently amended) A light emitting diode driving circuit comprising:

a luminance controller that approximates ~~the~~ luminance change characteristics of a light emitting diode with ~~the~~ luminance change characteristics of a lamp.

7. (Currently amended) The circuit of claim 6, wherein said luminance controller matches ~~the~~ a rate of change of luminance of the light emitting diode to approximate ~~the~~ a rate of change of luminance of a lamp.

8. (Previously presented) The circuit of claim 6, wherein said luminance controller comprises a pulse width adjuster that adjusts a pulse time width of a pulse signal from an illuminance controller to generate an adjusted pulse signal.

9. (Currently amended) The circuit of claim 8, wherein said luminance controller further comprises:

a pulse amplitude stabilizer that stabilizes ~~the~~ an amplitude of a pulse signal from the illuminance controller to provide a stabilized pulse control signal to said pulse width adjuster;

a smoothing circuit that smooths the adjusted pulse signal to generate a smoothed pulse signal;

a current interrupter that interrupts a supply of current to the light emitting diode in response to the adjusted pulse signal;

a control voltage switch that selects one of the smoothed pulse signal from the smoothing circuit and a minimum voltage from a minimum voltage generator; and

a constant voltage driver that provides the supply of current to the light emitting diode in proportion to the selected signal from the control voltage switch.

10. (Previously presented) The circuit of claim 8, wherein said luminance controller further comprises:

a pulse amplitude stabilizer that stabilizes the amplitude of a pulse signal from the illuminance controller to provide a stabilized pulse control signal to said pulse width adjuster;

a current interrupter that interrupts a supply of current to the light emitting diode in response to the adjusted pulse signal;

a control voltage switch that selects one of the adjusted pulse signal and a minimum voltage from a minimum voltage generator;

a smoothing circuit that smooths the selected signal to generate a smoothed signal; and

a constant voltage driver that provides the supply of current to the light emitting diode in proportion to the smoothed signal.

11. (Previously presented) The circuit of claim 8, wherein said luminance controller comprises a pulse amplitude stabilizer that stabilizes the amplitude of the pulse signal from the illuminance controller and wherein said pulse width adjuster adjusts the amplitude stabilized pulse signal from the pulse amplitude stabilizer.

12. (Previously presented) The circuit of claim 6, wherein said luminance controller comprises a maximum voltage generator that generates a maximum voltage that corresponds to a current supply which provides a maximum luminance from the light emitting diode, said maximum voltage providing a protection against over-voltage fluctuations in a voltage providing power to said luminance controller.

13. (Previously presented) The circuit of claim 6, wherein said luminance controller comprises a minimum voltage generator that prevents a sudden luminance decrease by said

light emitting diode.

14. (Previously presented) The circuit of claim 6, wherein said luminance controller comprises a smoothing circuit.

15. (Previously presented) The circuit of claim 6, wherein said luminance controller comprises a control voltage switch.

16. (Previously presented) The circuit of claim 6, wherein said luminance controller comprises a current interrupter that interrupts the supply of current to the light emitting diode in response to a pulse signal.

17. (Previously presented) The circuit of claim 6, wherein said luminance controller comprises a control voltage generator that adjusts a current supply to the light emitting diode based upon the luminance change characteristics of a light emitting diode.

18. (Previously presented) The circuit of claim 6, wherein said luminance controller adjusts a time width of a pulse control signal based upon the luminance characteristics of the light emitting diode.

19. (Previously presented) The circuit of claim 18, wherein said luminance controller increases the pulse width of said pulse control signal.

20. (Previously presented) The circuit of claim 6, wherein said luminance controller comprises at least two of:

a pulse width adjuster that adjusts a time width of a pulse signal based upon the luminance characteristics of the light emitting diode;

a minimum voltage generator that prevents a sudden luminance decrease by said light emitting diode; and

a current interrupter that interrupts the supply of current to the light emitting diode in response to a pulse signal.

21. (Previously presented) A circuit according to claim 1, further comprising:

a minimum control voltage generating circuit for generating a predetermined minimum control voltage; and

a control voltage switching circuit for setting said minimum control voltage at said driving circuit in place of said control voltage when said control voltage drops to a predetermined value or lower.

22. (Previously presented) A circuit according to claim 2, further comprising:

a minimum control voltage generating circuit for generating a predetermined minimum control voltage; and

a control voltage switching circuit for setting said minimum control voltage at said driving circuit in place of said control voltage when said control voltage drops to a predetermined value or lower.

23. (Previously presented) A circuit according to claim 1, further comprising:

a switch circuit for interrupting the forward current of said light emitting diode in response to said control pulse signal.

24. (Previously presented) A circuit according to claim 2, further comprising:

a switch circuit for interrupting the forward current of said light emitting diode in response to said control pulse signal.

25. (Previously presented) A circuit according to claim 2, further comprising:

a switch circuit for interrupting the forward current of said light emitting diode in response to said light adjustment pulse signal.

26. (Previously presented) A circuit according to claim 2, wherein said control pulse signal generating circuit comprises:

an integrated circuit which is driven by a software program.